

# MP: Statistics & Data mining (EUNICE shared course)



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## Présentation

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### Description

**Goal :** To understand and to be able to use basic ideas of statistical inference in a variety of settings.

**List of subjects to be presented to the students :**

- Descriptive statistics
- Foundations of Statistical Inference (univariate and multivariate analysis)
- Dimensionality reduction (PCA)
- Parametric and non-parametric tests
- Resampling techniques (bootstrap)
- Stated preference survey/reveal preference survey
- Introduction with summary of what has been seen in Module 2 where there is the content about data collect and analysis.
- Big principles of supervised / unsupervised methods (maybe also semi-supervised?)
- Main types of predictive techniques (regression and classification)
- Focus on the most used predictive techniques (SVM, neural networks, kNN, probabilistic graphical models, trees, ensemble models)